

# LET'S TALK POLLINATOR HABITAT

# BACKGROUND INFORMATION

## Background

- Since 2018, the City has been selecting No Mow areas to naturalize and restore woodland habitat.
- In Spring 2022, Dearbourne Park was selected as the first No Mow site in a neighbourhood park.
- In Summer 2022, the site was chosen as a result of community support from the August open house to become a pilot project that plans to enhance pollinator habitats and beauty within the City of Brampton.
- Intent of this pilot project is to build community programs focused on creating and maintaining pollinator habitats on public lands in local neighbourhoods.

## Why Dearbourne?

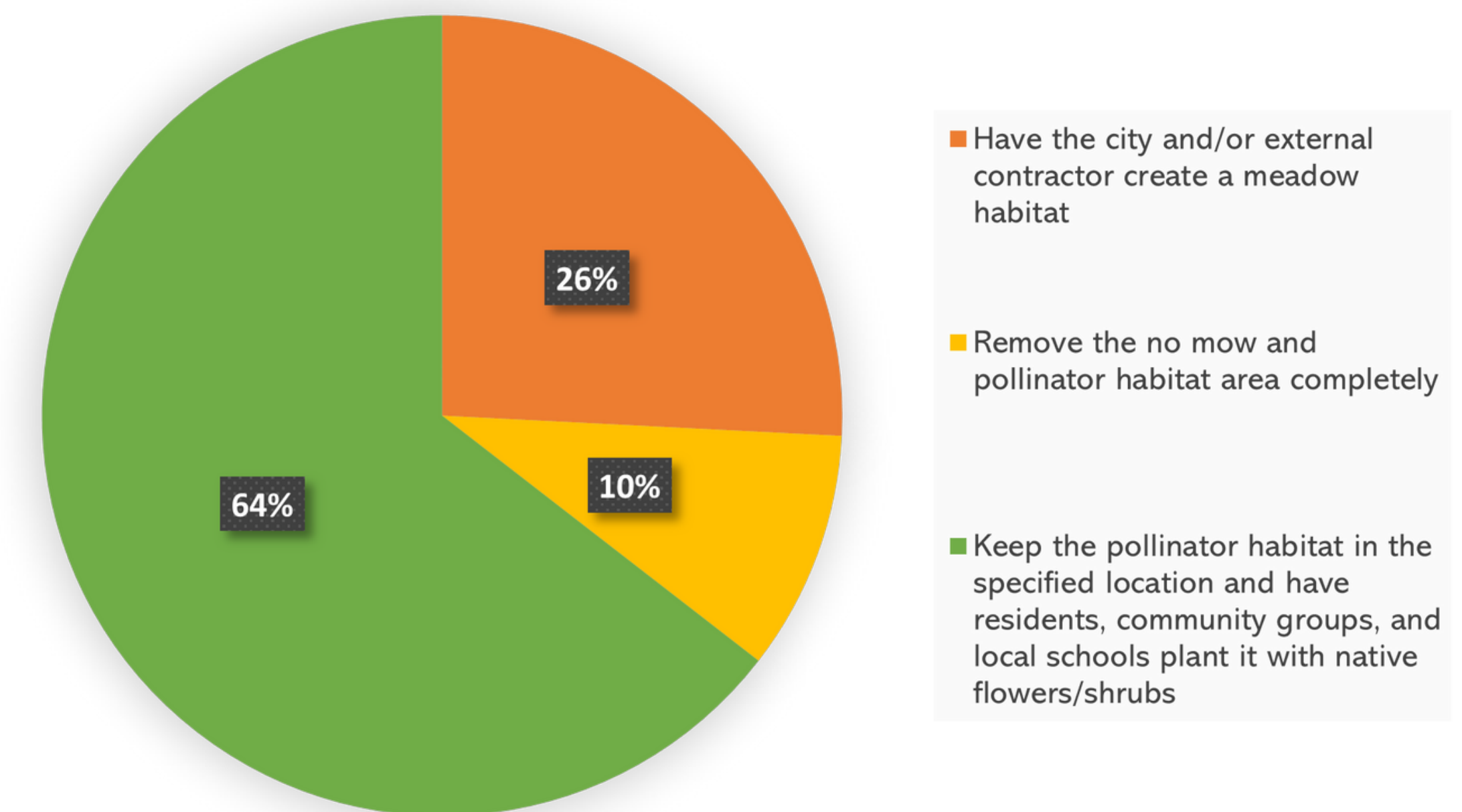
- Residents have expressed interest in more environmental initiatives and education opportunities at the park.
- Supports the 2021 plantings done at the park through the City's Parks and Valleyland Naturalization Program.
- Supports the Brampton's Bee City designation and provides a number of additional environmental and climate change benefits in the local neighbourhood.

## DEARBOURNE SITE



## What we heard at the August 2022 Open House

### How do you envision the No Mow area?



“

"Nature is for all of us. Bees, butterflies, and songbirds deserve more than concrete. More pollinator shrubs, groundcover, wildflowers, and native trees."

"Lots of room for everyone in the park. Trees, birds, butterflies, and people!"

"Get the community as involved as possible, similar to Friends and Stewards of Dorchester Park. Volunteer groups to educate people about the habitat and why it is important."

"Consult with an ecologist who knows what to plant & how to maintain pollination plants (meadows)."

”

# DEARBOURNE POLLINATOR HABITAT

# SITE MAP



# DEARBOURNE POLLINATOR HABITAT

# PILOT PROJECT PLAN

## Project Details

### Purpose

To establish a thriving pollinator habitat at Dearbourne Park that will deliver benefits for both the local community and the environment, with a concurrent focus on building community capacity to effectively maintain the pollinator habitat.

### Objectives

1. Establish a successful pollinator habitat at Dearbourne Park
2. Set up a volunteer community group through Adopt-A-Park to plant, monitor and maintain the habitat
3. Empower the community with knowledge about native planting and the tools to monitor and maintain the habitat
4. Use this project to promote future No Mow pollinator habitats in neighbourhood parks

### Project Benefits

-  Local biodiversity promotion
-  Supporting ecosystem services
-  Local climate change mitigation
-  Community activation, capacity building and educational opportunities
-  Increases park's aesthetic appeal

### Pollinator Garden Examples



Pollinator Garden, University of Guelph



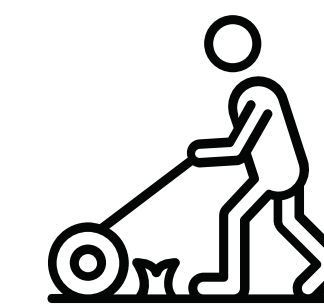
Pollinator Garden, Penn State University

## Project Activities



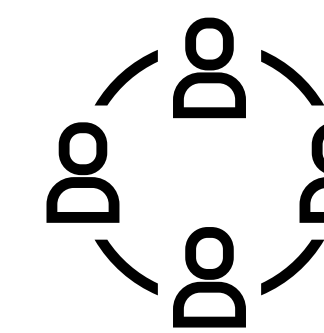
### Design and Planning

- Three habitat designs and a planting plan have been developed through collaboration with internal departments and pollinator experts



### Site Preparation

- Site preparation will begin in the Spring, with fabric tarping to remove invasive species
- Recycled logs will be used for site borders



### Community Involvement

- Volunteer community group will be established to support planting and maintenance
- Training will be provided to educate community on pollinators, planting, and invasive species



### Planting

- Planting will occur in phases for 3-5 years, with infill planting as needed
- City staff will organize planting events with support from the community group and local schools



### Monitoring and Maintenance

- Volunteer community group will be responsible for habitat maintenance with supplies and tools provided by City
- City will provide initial watering support until plants are fully established
- City staff are working with local schools to develop an educational monitoring program for collaboration with the community group

# DEARBOURNE POLLINATOR HABITAT

# SITE CONDITIONS

## Soil testing for optimal planting

- Habitat area was split into 4 equal sites that were tested to determine soil colour, texture, pH, and drainage.
- Results from all 4 sites were found using the Munsell Soil Colour Chart, mason jar soil tests, litmus paper, and observation.
- Results were used to inform which plant species would thrive at this site and choose which ones should be planted.



## Eco-considerations

- **Size:** In response to resident concerns about the size of the site, the habitat area has been reduced from 730ft<sup>2</sup> to 470ft<sup>2</sup>.
- **Plant species:** With existing trees and shrubs, the habitat currently receives a mix of full sun and part sun. After the habitat is established with new plantings, the site is expected to receive part sun overall. Plants will be selected to fit this criteria in order to achieve a thriving pollinator habitat.
- **Wildlife:** During site visits, key wildlife was observed such as birds, squirrels and worms, and resident's concerns of coyotes, ticks, and mice have been noted. The site will be bordered with logs and shorter plants in order to provide habitat for key species while avoiding hiding spots for wildlife of concern.
- **Existing use:** This habitat is in a high traffic area with a desired trail going through the habitat. We have factored foot traffic and recreational use into our design concepts so that the pollinator habitat will fit seamlessly into Dearbourne Park.

## Recommendations from experts

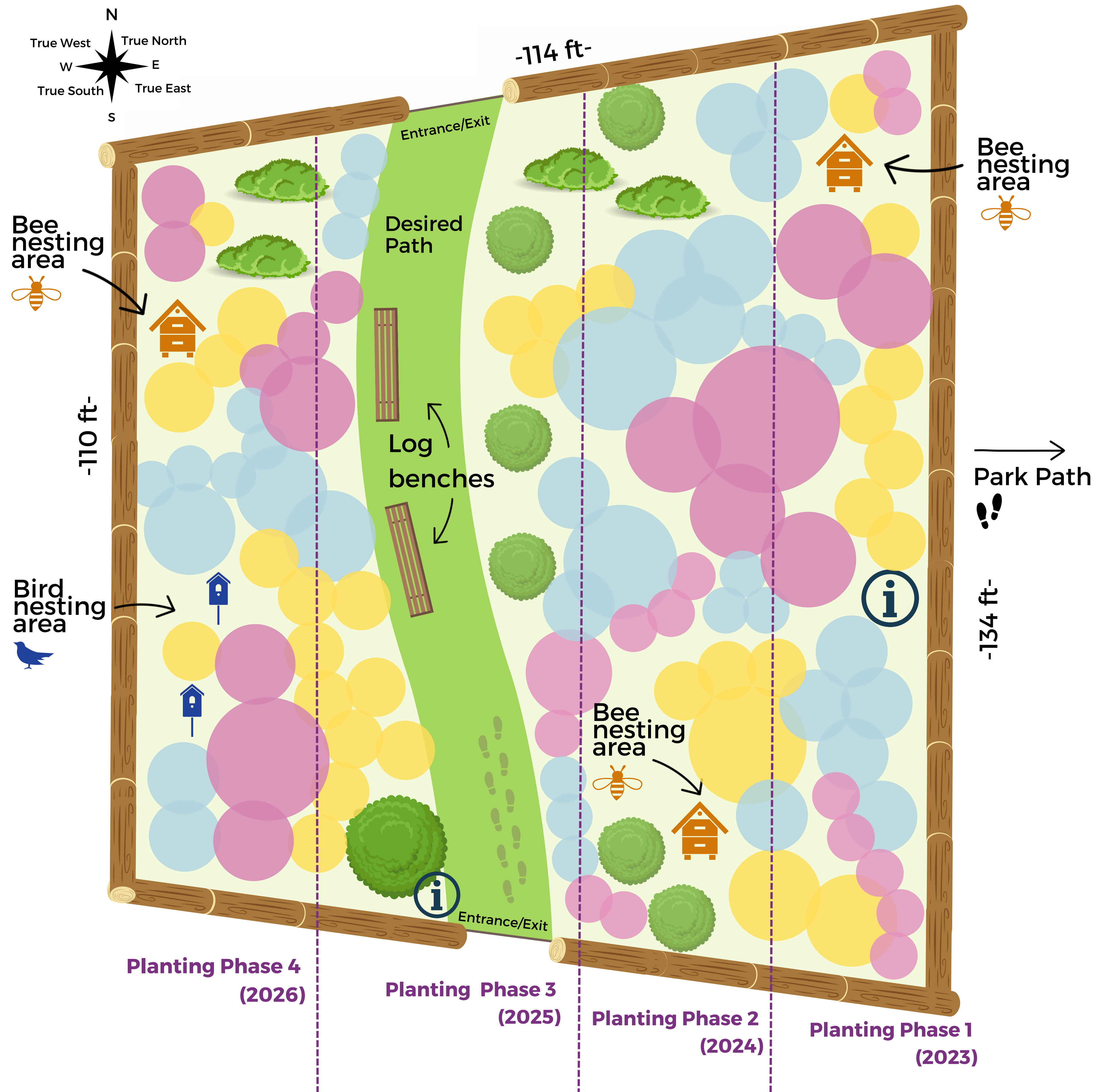
Through a collaborative effort with internal departments, Bee City Canada/Pollinator Partnership Canada, and horticulturalists, City staff has developed a comprehensive planting plan and design concepts, including the following recommendations:

- Habitat will be boarded off with logs in the spring in order to avoid trampling and wildlife interference.
- Habitat will be prepared for planting using solarization techniques (tarping) this Spring through Summer.
- Planting will occur in the fall in order to adapt to less rain in the spring due to climate change.
- Planting will be completed through 4 phases, beginning with front facing areas, to provide maximum beauty and to test out the best planting methods.
- During planting, bare patches of soil will be left for bee hibernation.

Soil Results	Site 1	Dark yellow brown	Sandy clay loam	pH of 7	Water retaining
	Site 2	Dark olive brown	Loam	pH of 7	Well drained
	Site 3	Dark olive brown	Sandy loam	pH of 7	Quick drained
	Site 4	Dark brown	Loam	pH of 7	Well drained

# POLLINATOR HABITAT DESIGN

## OPTION 1: HABITAT HAVEN



### LEGEND

	Early spring flowering plants		Bee box
	Mid-season flowering plants		Bird box
	Late summer flowering plants		Log border
	Information sign		Log bench

### EXISTING FEATURES

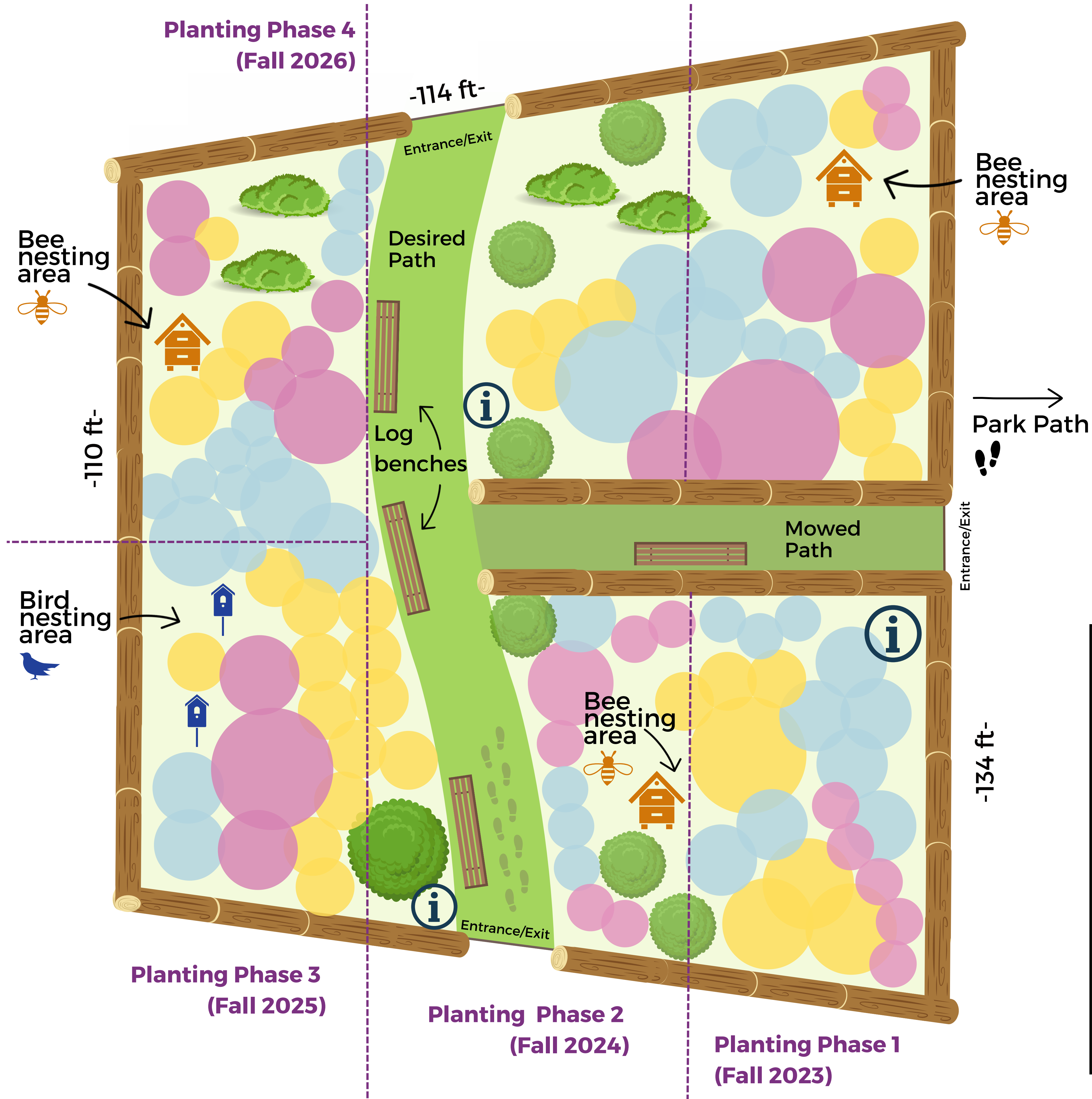
Tree	Shrub	Desired path

### KEY FEATURES

- Prioritizes the protection and promotion of pollinators by establishing a nature-focused habitat. To encourage visitors to appreciate and respectfully engage with the habitat, it will feature two well-placed log benches along the mulched desired path.
- Three bee boxes and two bird boxes will be incorporated to provide habitat support for pollinators.
- Planting of the area will be completed over 4 years and 4 seasons to enable community groups and schools to participate in the planting process.
- To ensure optimal growth, planting types will vary between seed bombs, seeds packets, one-gallon pots, and plugs.
- Design will be 90% naturalized, with approximately 0.26 hectares of land dedicated to the natural area.

# POLLINATOR HABITAT DESIGN

# OPTION 2: A BALANCED SYSTEM



### LEGEND

	Early spring flowering plants		Bee box
	Mid-season flowering plants		Bird box
	Late summer flowering plants		Log border
	Information sign		Log bench
			Mowed path

### EXISTING FEATURES

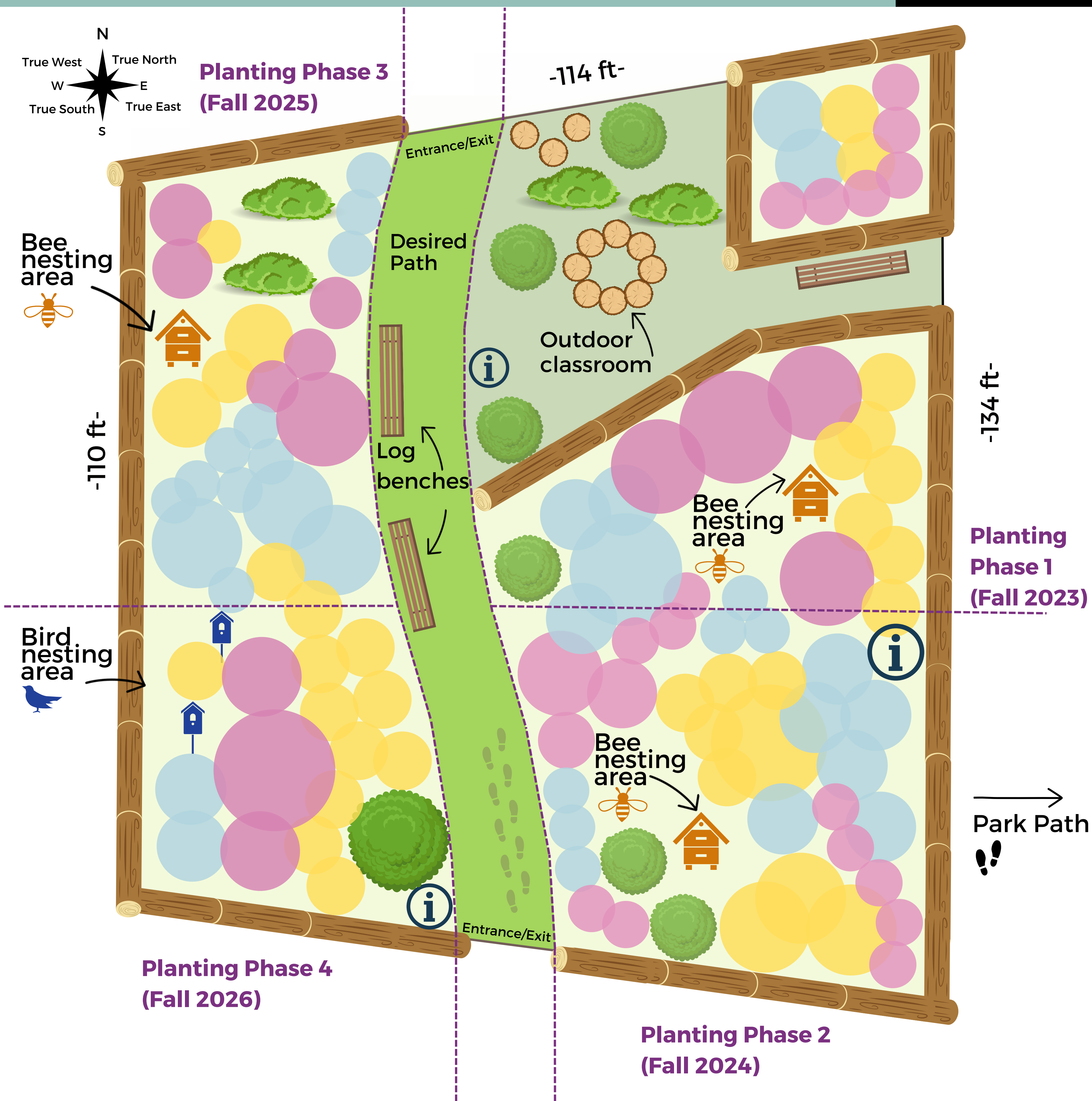
	Tree		Shrub		Desired path
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### KEY FEATURES

- Prioritizes the balance between pollinator protection, habitat enhancement and social interaction. A mulched trail will intersect the habitat to increase visitor engagement. Additional seating and signage will be included.
- Three bee boxes and two bird boxes will be incorporated to provide habitat support for pollinators.
- Planting of the area will be completed over 4 years and 4 seasons to enable community groups and schools to participate in the planting process.
- To ensure optimal growth, planting types will vary between seed bombs, seeds packets, one-gallon pots, and plugs.
- Design will be 70% naturalized, with approximately 0.2 hectares of land dedicated to the natural area.

# POLLINATOR HABITAT DESIGN

# OPTION 3: POLLINATOR PLAYGROUND



### LEGEND

	Early spring flowering plants		Bird box
	Mid-season flowering plants		Log border
	Late summer flowering plants		Log bench
	Information sign		Stump seat
	Bee box		Mowed open space

### EXISTING FEATURES

	Tree		Shrub		Desired path
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### KEY FEATURES

- Prioritizes maximum accessibility into the pollinator habitat. A mulched trail and open area will intersect the habitat and include an outdoor classroom, stump and log seating.
- Three bee boxes and two bird boxes will be incorporated to provide habitat support for pollinators.
- Planting of the area will be completed over 4 years and 4 seasons to enable community groups and schools to participate in the planting process.
- To ensure optimal growth, planting types will vary between seed bombs, seeds packets, one-gallon pots, and plugs.
- Design will be 60% naturalized, with approximately 0.18 hectares of land dedicated to the natural area.

# DEARBOURNE POLLINATOR HABITAT

# PLANTING PLAN

## Early spring flowering plants

## Mid-season flowering plants

## Late summer flowering plants



**Wild bergamot\***  
*Monarda fistulosa*

1-3ft.



**Black-eyed susan**  
*Rudbeckia hirta*

2-3 ft.



**Lanceleaf coreopsis**  
*Coreopsis lanceolata*

1-2 ft.



**Butterfly weed\***  
*Asclepias tuberosa*

2-3ft.



**Dotted horsemint**  
*Monarda punctata*

2-4 ft.



**Common yarrow**  
*Achillea millefolium*

2-3 ft.



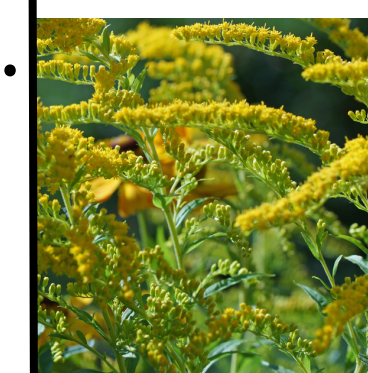
**Evening primrose**  
*Oenothera biennis*

3-4 ft.



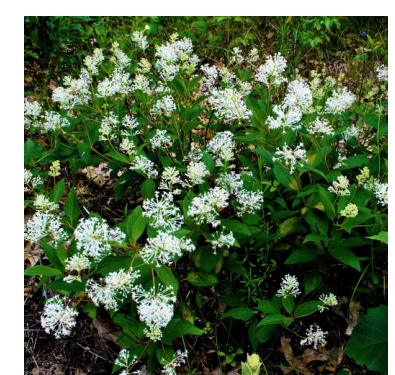
**Blue vervain**  
*Verbena hastata*

3-5 ft.



**Stiff goldenrod\***  
*Solidago rigida*

4-5 ft.



**New jersey tea**  
*Ceanothus americanus*

3-4 ft.



**Purple coneflower**  
*Echinacea purpurea*

4-5 ft.



**White meadowsweet**  
*Spiraea alba*

4-5 ft.



**Culver root**  
*Veronicastrum virginicum*

4-7 ft.



**Eastern Red bud**  
*Cercis canadensis*

15-20 ft.



**Black cohosh**  
*Cimicifuga racemosa*

6-8 ft.



**Canadian serviceberry\*\***  
*Amelanchier canadensis*

10-30 ft.



**Canadian Plum\*\***  
*Prunus nigra*

15-30ft.



**Common elderberry\*\*\***  
*Sambucus canadensis*

5-12 ft.



**Pennsylvania sedge\***  
*Carex pensylvanica*

0.5-1 ft.



**Bebb's sedge\***  
*Carex bebbii*

0.5-2 ft.



**Little bluestem grass\***  
*Schizachyriu scoparium*

2-4 ft.

## Rational key

## Considerations

- \*Shade providing plant for log seating
- \*Hollow stemmed plant to support pollinator hibernation
- \*Grassy plant for breeding and to provide food for larva
- \*Fruit producing plant

- Selected species are all flowering plants native to Southern Ontario that thrive in full sun/part shade and sandy-clay loam soil.
- The planting plan has been carefully designed with expert advice to provide maximum beauty, year-round blooms, and low maintenance requirements.
- Specific species may change due to plant availability however, ecological functions and key characteristics will remain the same.

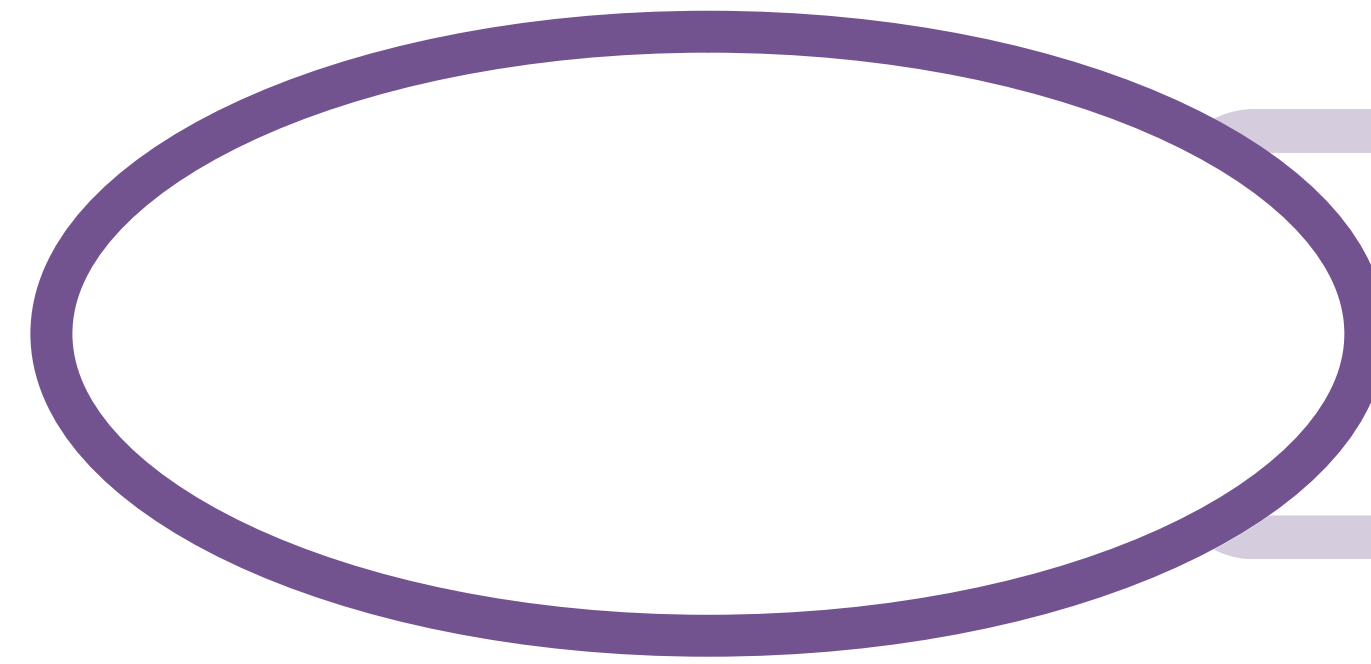


**WE NEED YOUR INPUT!**

Place stickers on your preferred design option and/or share your ideas on sticky notes.

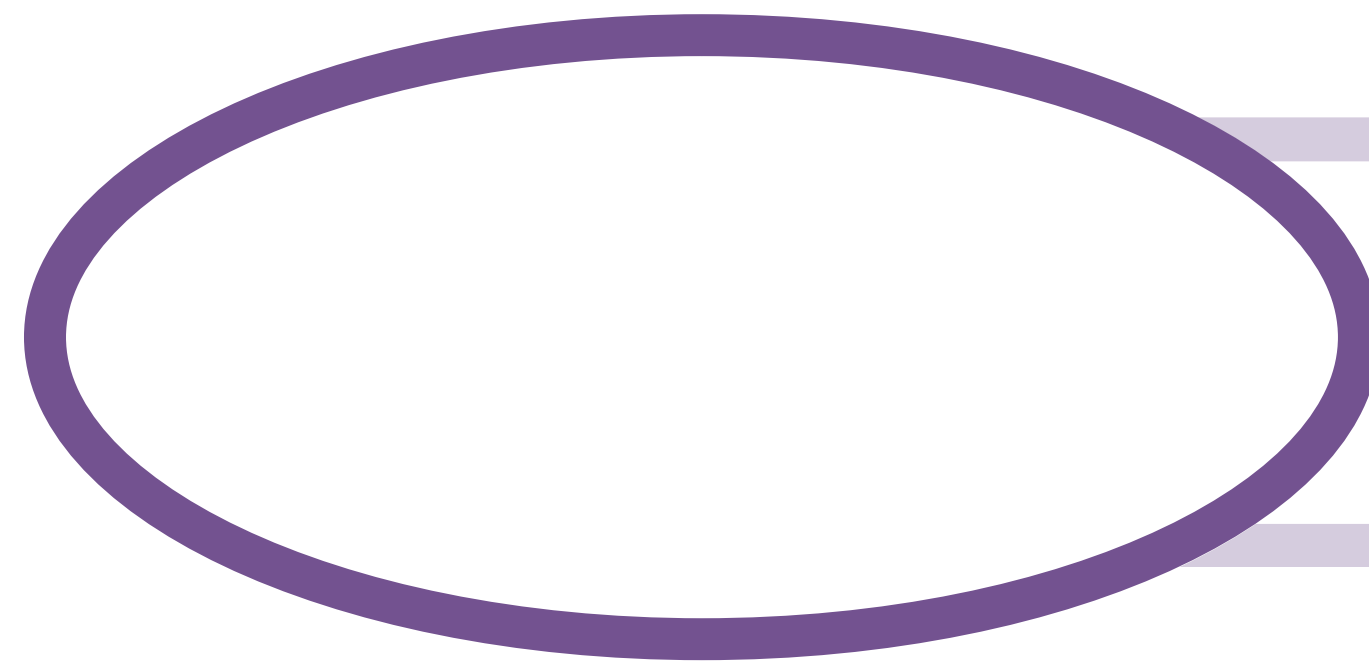
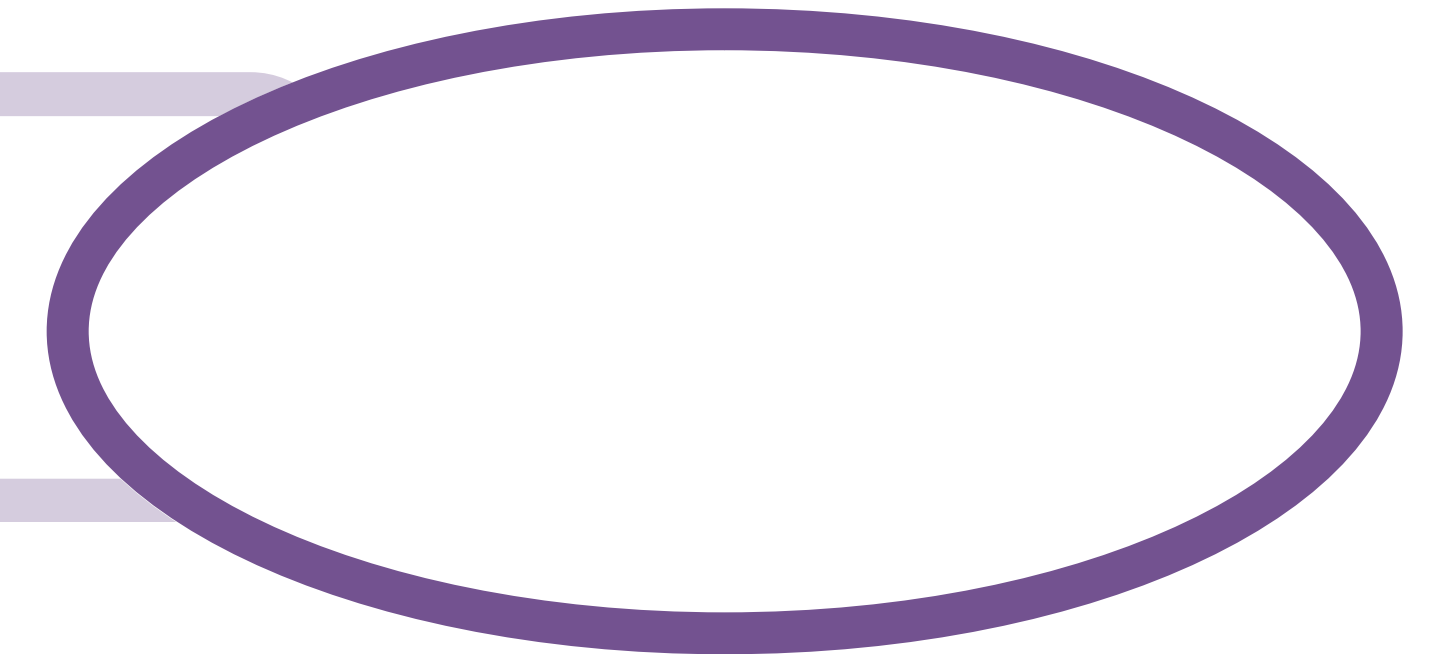
**QUESTION 1**

**WHAT IS YOUR  
PREFERRED  
POLLINATOR  
HABITAT DESIGN?**



**Option 1: Habitat Haven**

**Option 2: A Balanced System**



**Option 3: Pollinator Playground**

**Something else?**

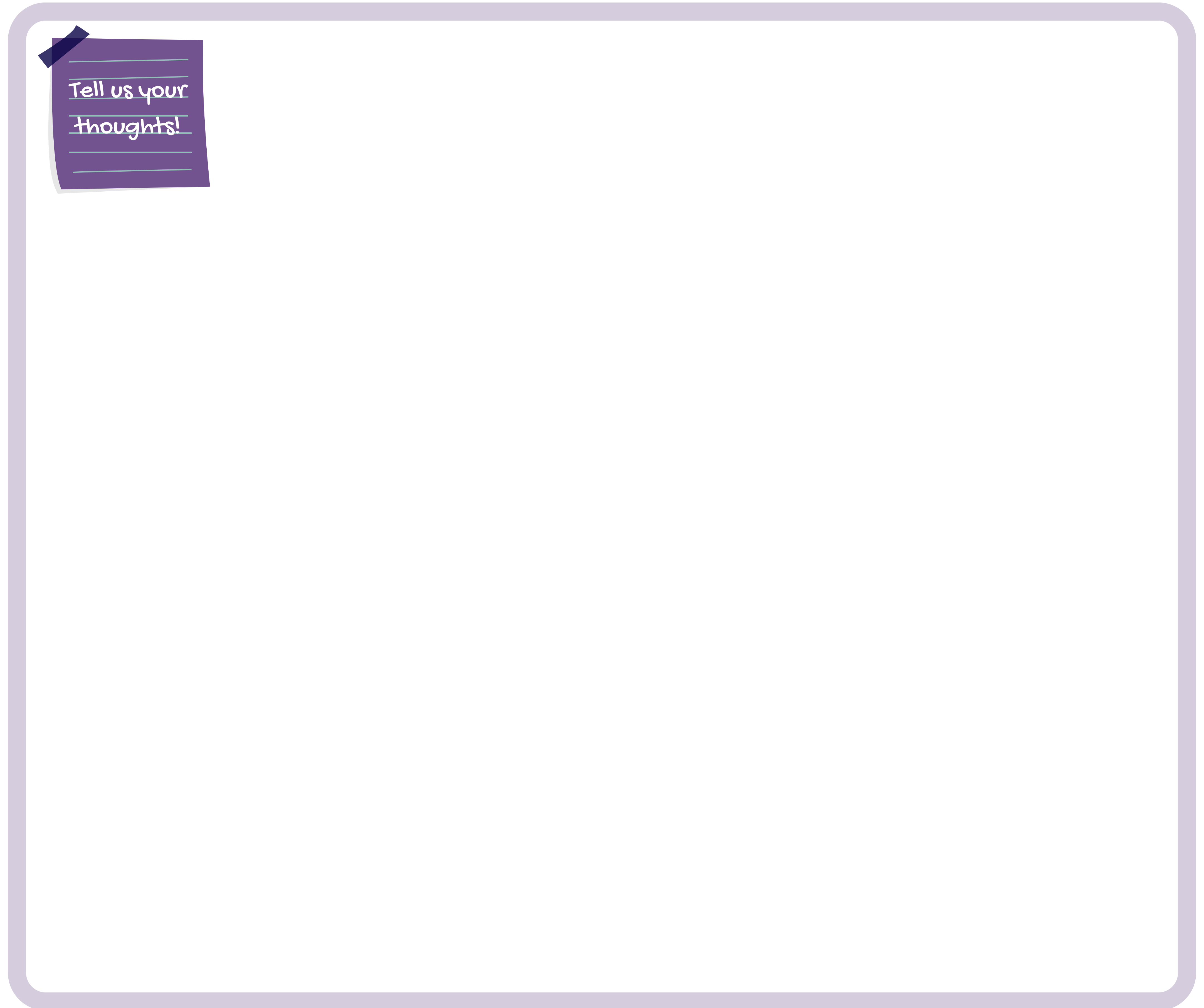


**WE NEED YOUR INPUT!**

Post a sticky note with any comments, questions, or ideas.

## QUESTION 2

**WHAT IS YOUR  
FEEDBACK ON THE  
PLANTING PLAN?**



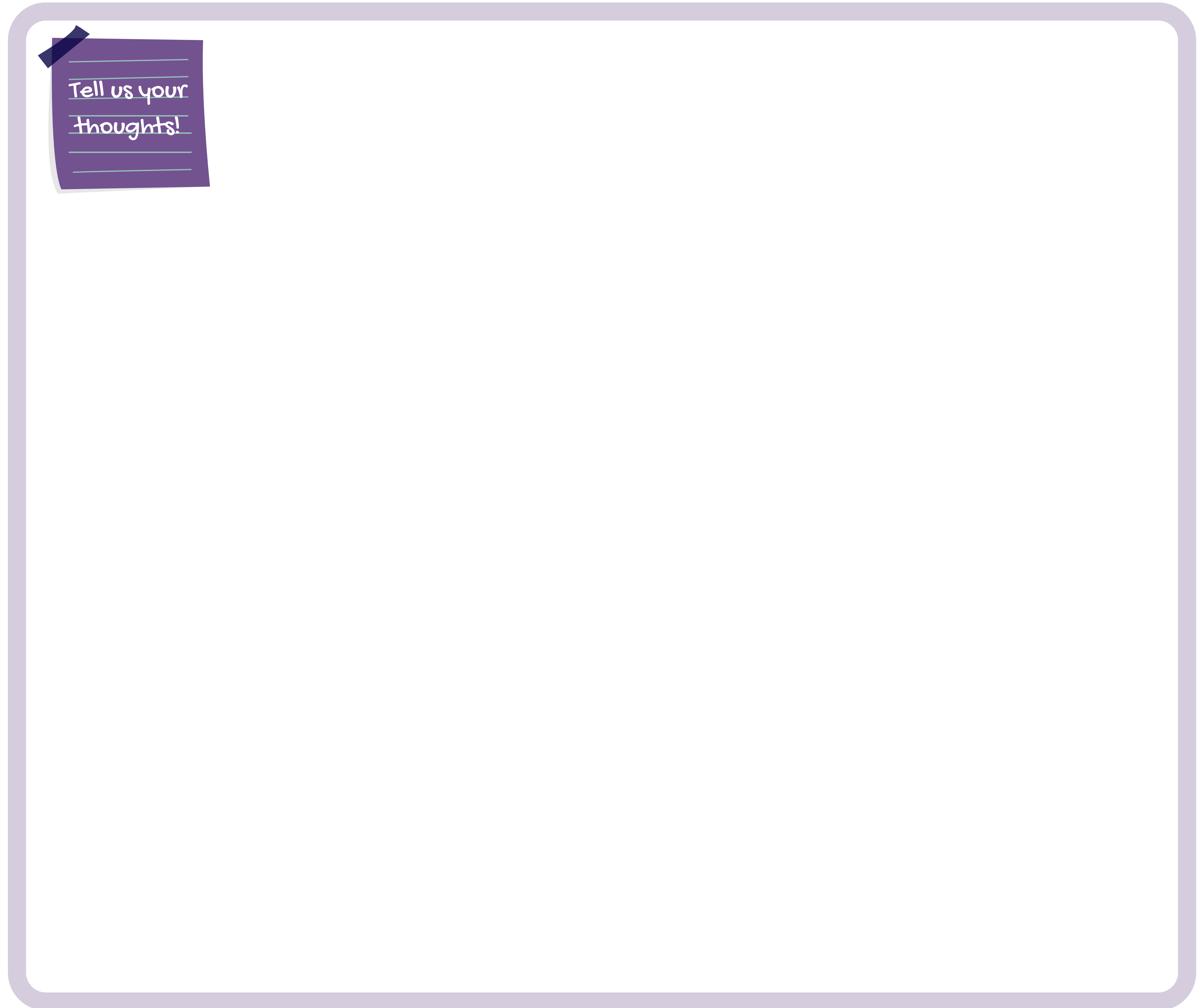
Tell us your thoughts!

WE NEED YOUR INPUT!

Post a sticky note with any comments, questions, or ideas.

## QUESTION 3

WHAT IS YOUR  
OVERALL  
FEEDBACK ON THE  
DEARBOURNE  
POLLINATOR  
PROJECT?



*Tell us your thoughts!*

## GET INVOLVED

## JOIN THE VOLUNTEER COMMUNITY GROUP!

### Dearbourne Pollinator Community Group

Through the Adopt-A-Park program, the City of Brampton is facilitating the creation of a volunteer community group that will plant, monitor and maintain the Dearbourne Pollinator Habitat. The community group will be responsible for the planting and long-term maintenance for the success of the habitat by hosting 4 small activities per year consisting of planting, weed pulling, litter clean ups, and anything else the group comes up with.

### What we need from you

All that is required is your time. The City will provide the plants, materials, tools, and staff to help with planting and stewardship events.

You may wish to further your involvement by raising funds to plant trees, purchase equipment, improve facilities, or any other initiative to improve Dearbourne Park.

### What your experience will look like

- Help plant the pollinator habitat with native species over 3-5 years, with the first planting event in fall 2023
- Maintain the pollinator habitat in the spring, summer, and fall months by pulling prohibited plants
- Work with local schools and organizations to monitor the habitat
- Clean up litter within the habitat and around the park
- Report vandalism to the City

### Why join the community group?

- Increase biodiversity in your local ecosystem
- Learn about pollinators, native plants, and gain training from experts
- Connect with like-minded individuals who share a passion for the environment
- Earn volunteer hours for school
- Enjoy the health benefits of spending time outdoors and engaging in physical activity

### Make a positive impact in your local community and sign up to join!

Scan the QR code with your phone or talk to a City Staff Member to fill out the sign-up sheet.

Interested in leading the community group? Let us know!

SCAN ME

